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Learning Centres

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WHY LEARNING CENTRES?

The Learning Centre Environment is based upon the concept that "Children differ in their developmental patterns: ways in which they approach a task, interests, aptitudes, talents, abilities, attitudes, and values; how they perceive and interact with their environment". (Nations; 1976:12)

Four basic guidelines which should be considered when making program decisions are outlined by Day (1983). They are:

1. Early childhood education should focus on the total child, taking into consideration the cognitive, affective, and psychomotor growth of the child.
2. The program must be organized around the developmental needs, interests, and learning styles of each child rather than around a single text, curriculum guide, learning package, or time schedule.
3. The learning environment must encourage active participation on the part of each child, so that children can learn through observation, exploration, and verbalization. Self-expression should be encouraged through drawing, dramatic and movement activities.
4. In an early childhood classroom, how the program is taught is as important as what is taught.

Learning centres provide opportunities for children to:

1) meet their individual rates of growth.
2) have sensory and concrete learning experiences. Learning is something children do, rather than something that is done to them.
3) experience individual inquiry, discovery and pacing.
4) experience personal teacher guidance and adult support.
5) learn according to individual learning styles and modalities.
6) direct their own goals and work independently.
7) learn through play to enhance problem-solving, social interaction and coping skills. Play integrates the learning process.
8) follow their own interests and desires to learn through choice of centres. This also increases attention span and motivation.

WHAT ARE THE GOALS OF LEARNING CENTRES?

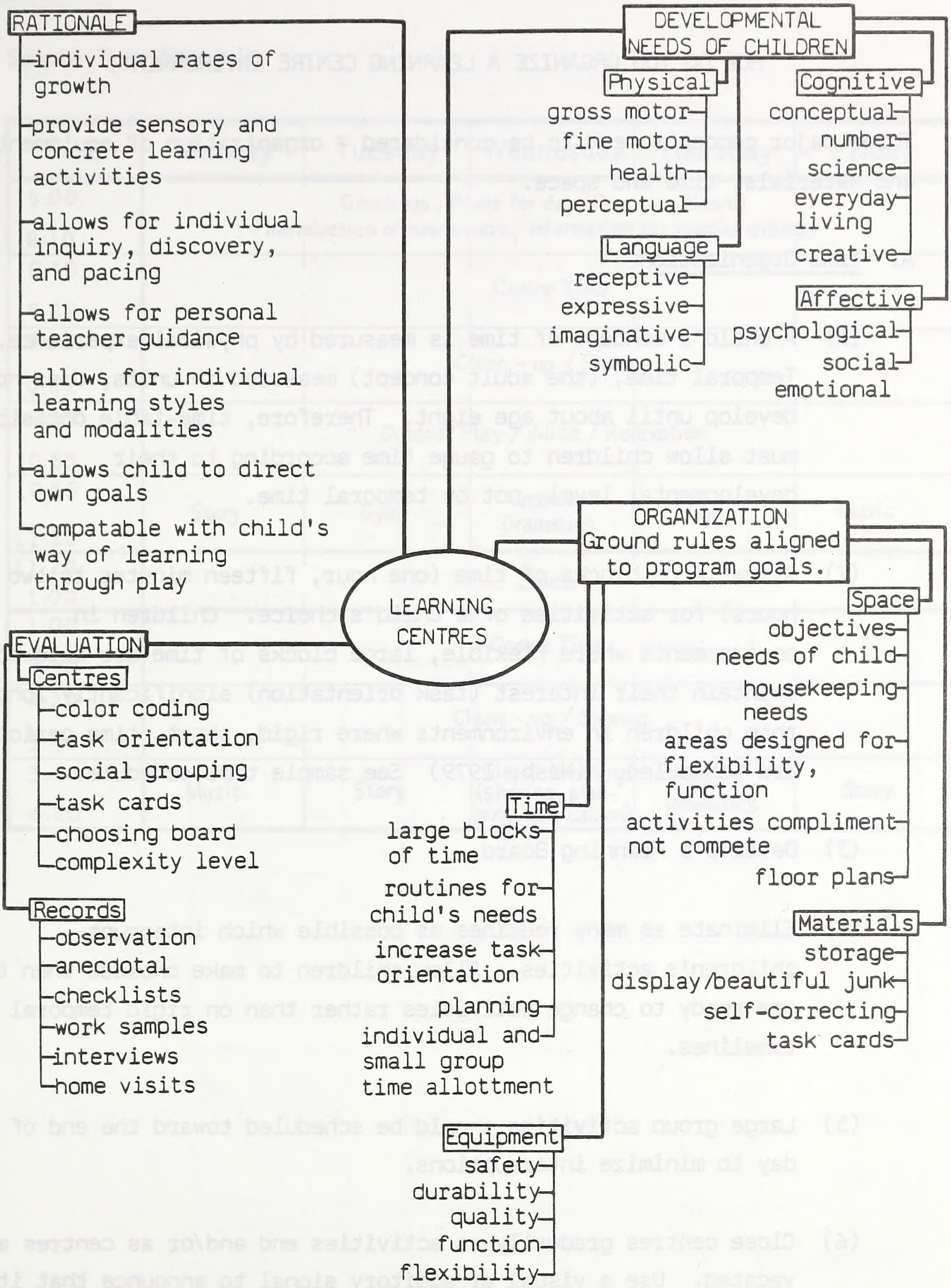
Learning Centres should be designed to foster the development of children. Development can be examined under the following categories:

(i) Physical Needs (gross motor, fine motor, sensory, perceptual)
(ii) Cognitive Needs (conceptual, number, science, everyday living, creative)
(iii) Language Needs (receptive, expressive, imaginative, symbolic)
(iv) Affective Needs (psychological, social-emotional).

Designing a Learning Centre Environment requires an understanding of the following:

1. a belief in the rationale behind learning centres
2. the developmental needs of young children
3. the organizational components: time, space, equipment and materials
4. how evaluation of learning occurs.

The Flow-Chart on the next page provides an overview of these principles.


LEARNING CENTRES
RATIONALE
individual rates of growth
provide sensory and concrete learning activities
allows for individual inquiry, discovery, and pacing
allows for personal teacher guidance
allows for individual learning styles and modalities
allows child to direct own goals
compatable with child's way of learning through play
DEVELOPMENTAL NEEDS OF CHILDREN
Physical
gross motor
fine motor
health
perceptual
Language
receptive
expressive
imaginative
symbolic
Cognitive
conceptual
number
science
everyday living
creative
Affective
psychological
social
emotional
ORGANIZATION
Ground rules aligned to program goals.
Space
objectives
needs of child
housekeeping needs
areas designed for flexibility, function
activities compliment not compete
floor plans
Materials
storage
display/beautiful junk
self-correcting
task cards
Time
large blocks of time
routines for child's needs
increase task orientation
planning
individual and small group
time allottment
Equipment
safety
durability
quality
function
flexibility
EVALUATION
Centres
color coding
task orientation
social grouping
task cards
choosing board
complexity level
Records
observation
anecdotal
checklists
work samples
interviews
home visits

HOW DO YOU ORGANIZE A LEARNING CENTRE ENVIRONMENT?

Three major concepts need to be considered - organization of equipment and materials, time and space.

A. Time Organization

(1) A child's concept of time is measured by physical experience. Temporal time, (the adult concept) measured in units, does not develop until about age eight. Therefore, time-table decisions must allow children to gauge time according to their developmental level, not by temporal time.

(2) Allow large blocks of time (one hour, fifteen minutes to two hours) for activities of a child's choice. Children in environments where flexible, large blocks of time are allowed, maintain their interest (task orientation) significantly longer than children in environments where rigid, short, time periods are scheduled. (Nash, 1979) See sample time schedule.

(3) Develop a Planning Board.

(4) Eliminate as many routines as possible which interrupt children's activities. Allow children to make choices when they are ready to change activities rather than on rigid temporal timelines.

(5) Large group activities should be scheduled toward the end of the day to minimize interruptions.

(6) Close centres gradually as activities end and/or as centres are vacated. Use a visual or auditory signal to announce that it is nearly time to terminate activities.

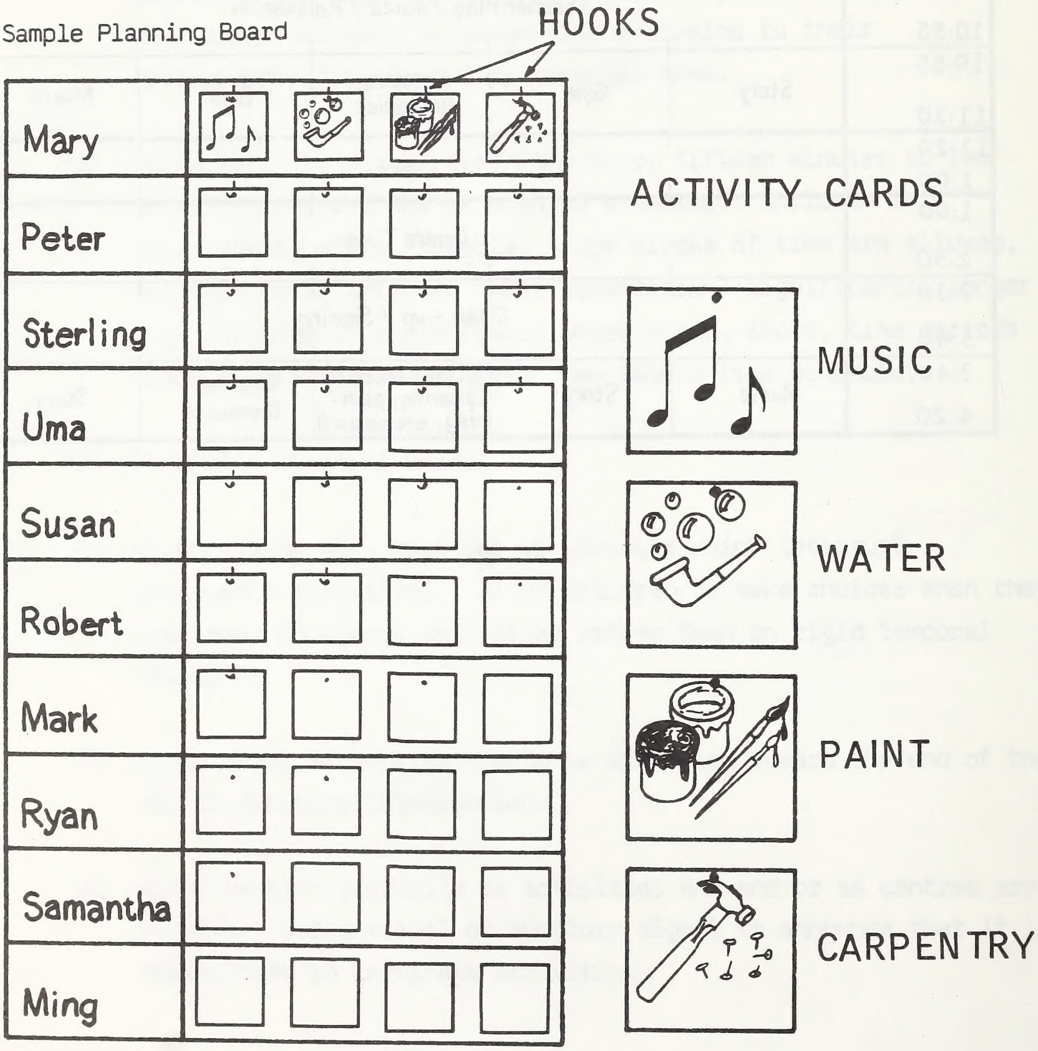
Sample Time Schedule

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 8:10	Greetings, Plans for day (Choosing Board) (Introduction of new centre, Information re: special events)				
8:10 9:35	Centre Time				
9:35 9:45	Clean - up / Sharing				
9:45 10:55	Outdoor Play / Juice / Relaxation				
10:55 11:20	Story	Gym	Creative Dramatics	Gym	Music
11:20 1:00	Lunch				
1:00 2:30	Centre Time				
2:30 3:40	Clean - up / Sharing				
3:40 4:20	Music	Story	Class Meeting (Sharing, planning, evaluation)	Creative Dramatics	Story

PLANNING BOARDS give children an opportunity to make choices. The five basic steps in using a planning board to help children move toward a concept of objective time are:

- a) register choice of activity
- b) record decision on planning board
- c) follow through with activity
- d) decide when activity is completed
- e) evaluate the activity

Sample Planning Board



Activity cards are made up for each learning centre. Each child selects the activities he/she wishes to work on for the day. He/she places the appropriate cards on the board. When an activity is completed, the children turn it over or record, on their master sheet, the activity completed, and return the card.

B. Organization of Space

(I) Classroom Space

1. Divide the room into four quadrants as illustrated.

	QUIET	NOISY
WET	playdough paint art	water sand clay cooking
DRY	library puzzles	blocks carpentry creative drama

2. Wet-noisy centres, dry-noisy centres, dry-quiet centres, and wet-quiet centres should be grouped together.
3. Centres should be placed so they complement, not compete with each other.
4. Define numbers of children that can be accommodated at each centre. See Appendix A.
5. Allow some empty space for expansion of activities.

6. One-third of space should be vacant space.
7. Provide some "private" spaces for children.
8. Avoid "dead" space.
9. Plan pathways or movement patterns to facilitate easy access from one centre to another.

(II) Storage Space

Day and Drake (1983) suggest that listing the number of learning centres available, with the number of children each will accommodate, assists in the organization of space and numbers of centres needed to be operating at one time. The number of spaces available in centres should exceed number of children in the classroom.

1. Materials and equipment must be readily available and accessible.
2. Storage space can be arranged by using "found materials".
3. Materials need to be clearly labelled.

C. Organization of Equipment and Materials

1. Materials are selected on the basis of their appropriateness to the learning goals of each centre.
2. Permanent fixtures such as coat hooks, blackboards, etc. need to be considered.
3. Criteria for selecting equipment includes safety, durability, quality, function, flexibility, permanency.
4. Commercial materials can be expensive. Considered using "found" or "homemade" materials such as:
    - a) work surfaces: oilcloth on floor, wooden boxes, clip boards
    - b) chairs: carpet bits, t-shirts stuffed and sewn, large blocks or cylinders
    - c) water table: used baby bath or large tub
    - d) sand: Large tire attached to plywood and water-proofed
    - e) easels: cardboard boxes; use all four faces and pin painting paper to each face. Cardboard, soft-drink cartons are ideal for easy carrying of paint cans.
    - f) blocks: empty milk cartons, variety of boxes with lids, variety of sizes of wood scraps, (sanded to prevent slivers)
    - g) craft materials: odd buttons and scraps from fabric stores, egg cartons, styrofoam pieces used in packing crates, computer printout sheets, scrap ends from commercial printers, old clocks, radios and speedometers from repair shops, etc.

What Is The Role Of The Teacher?

"The teacher's role is that of a facilitator of learning rather than the source of learning: the child is the source" (Spodeck 1974). The teacher's job is to provide experiences which will initiate the child's thinking. The teacher guides by the materials and environment provided.

The teacher moves around the classroom throughout the day working with small groups or individual children.

The teacher's role includes:

1. Planning specific learning centres she/he wishes to establish and defining goals in terms of the developmental needs of children. (Sample flow charts are included for a Sand Centre, Block Centre, and Manipulative Centre in Appendices F through H inclusive).
2. Active rather than passive participation
   - constantly challenges, suggests, stimulates, extends, reinforces, clarifies, questions, develops problem-solving skills, and stimulates learning.
3. Establishing and reinforcing rules.
4. Planning for effective use of aides, paraprofessionals and parent volunteers in the classroom by making his/her objectives for each learning centre clear.
5. Monitoring the children's work and the centres they choose.
6. Monitoring the number of children using any particular centre at one time.
7. Orienting children to new centres and/or materials as they are introduced.
8. Arranging the time schedule to provide opportunities for individual conferences and instructional time at centres.

EVALUATION

Evaluation of young children's growth and development must be continuous. It is based on the individual child's progress and work. "Record keeping in a learning centre environment is very important: accurate and detailed reports of the individual child's developmental levels and what he/she is doing must be kept." (Day, 1975: 178)

There are many forms of record keeping which provide a variety of ways of evaluating growth. Several should be used for each child.

1. Anecdotal Records: include specific episodes or achievements. They are not value judgements but accurate recording of behaviors and events.
2. Focused Observation: focus on specific area of development about which the teacher needs more information. It should include general behavior patterns as well as academic achievements and be shared with parents to help them understand how behavior indicates growth.
3. Student Files: samples of children's writing, drawing, pictures of block structures and experiments, tapes of children's language, samples of task card assignments, etc.
4. Checklists: particular aspects of development are noted and checked off as the child displays behavior which indicates growth in particular activities, skills, concepts, or attitudes. (See sample).
5. Parent Conferences: should be an opportunity for shared evaluation of the child's progress.

Samples found in Appendices I and J.

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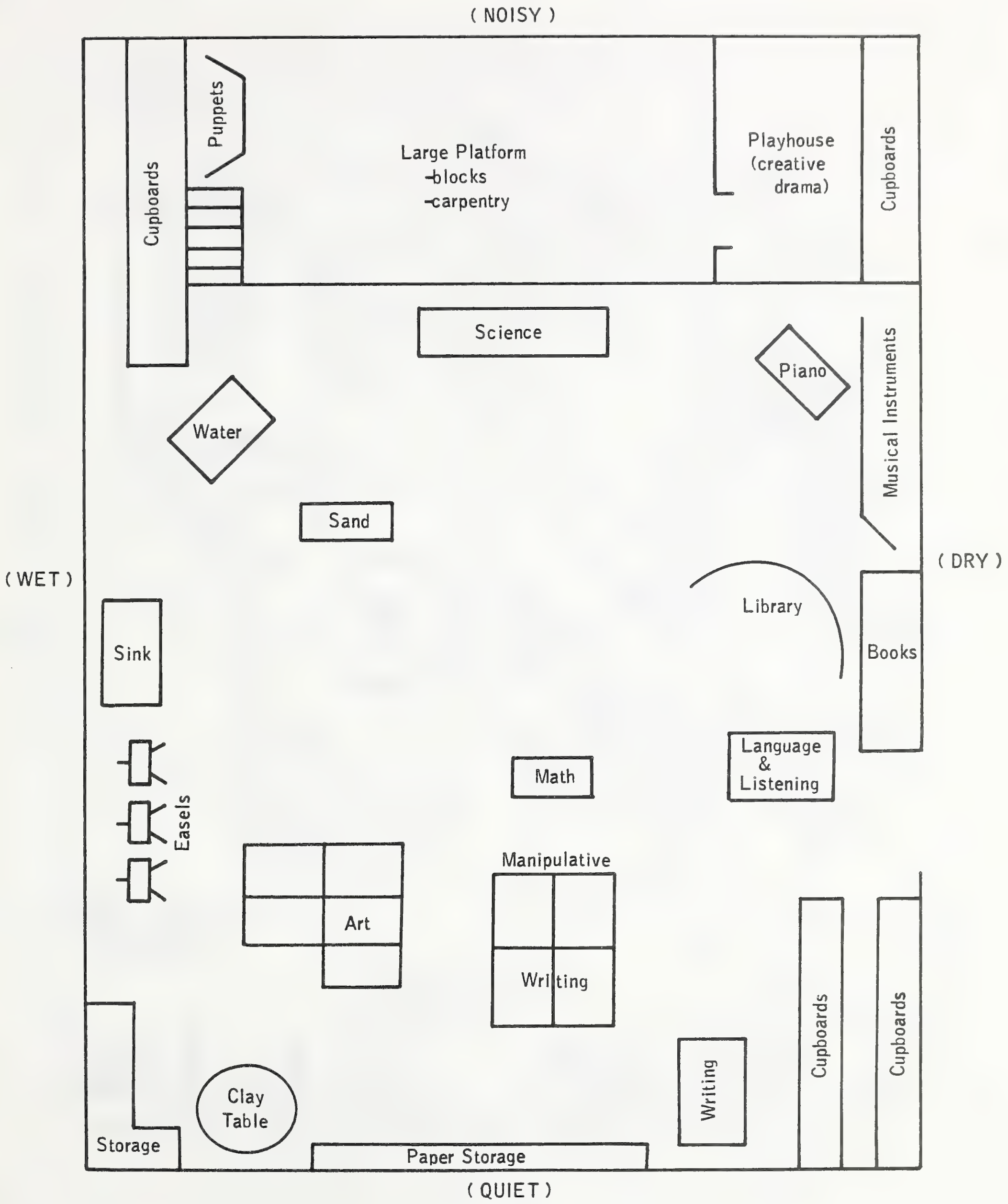
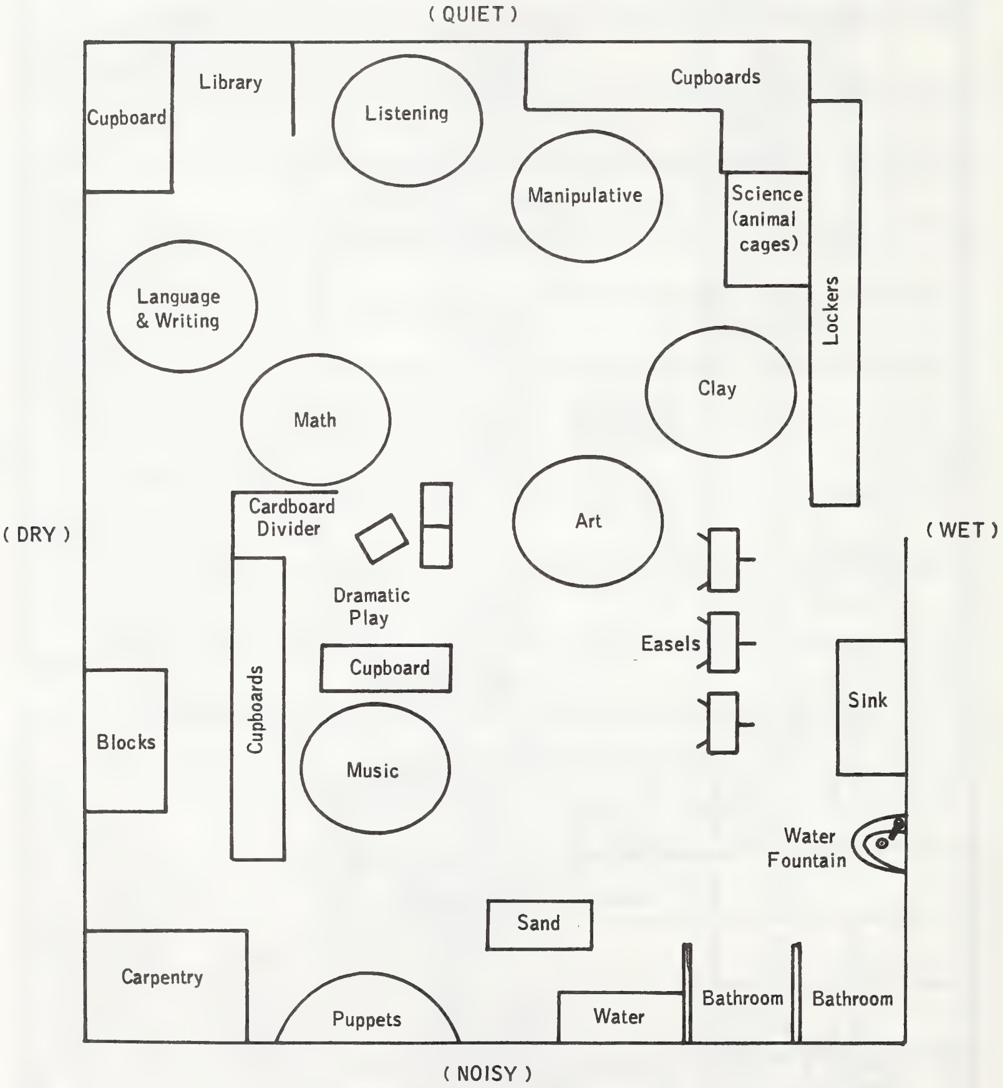
CENTRES BEING USED

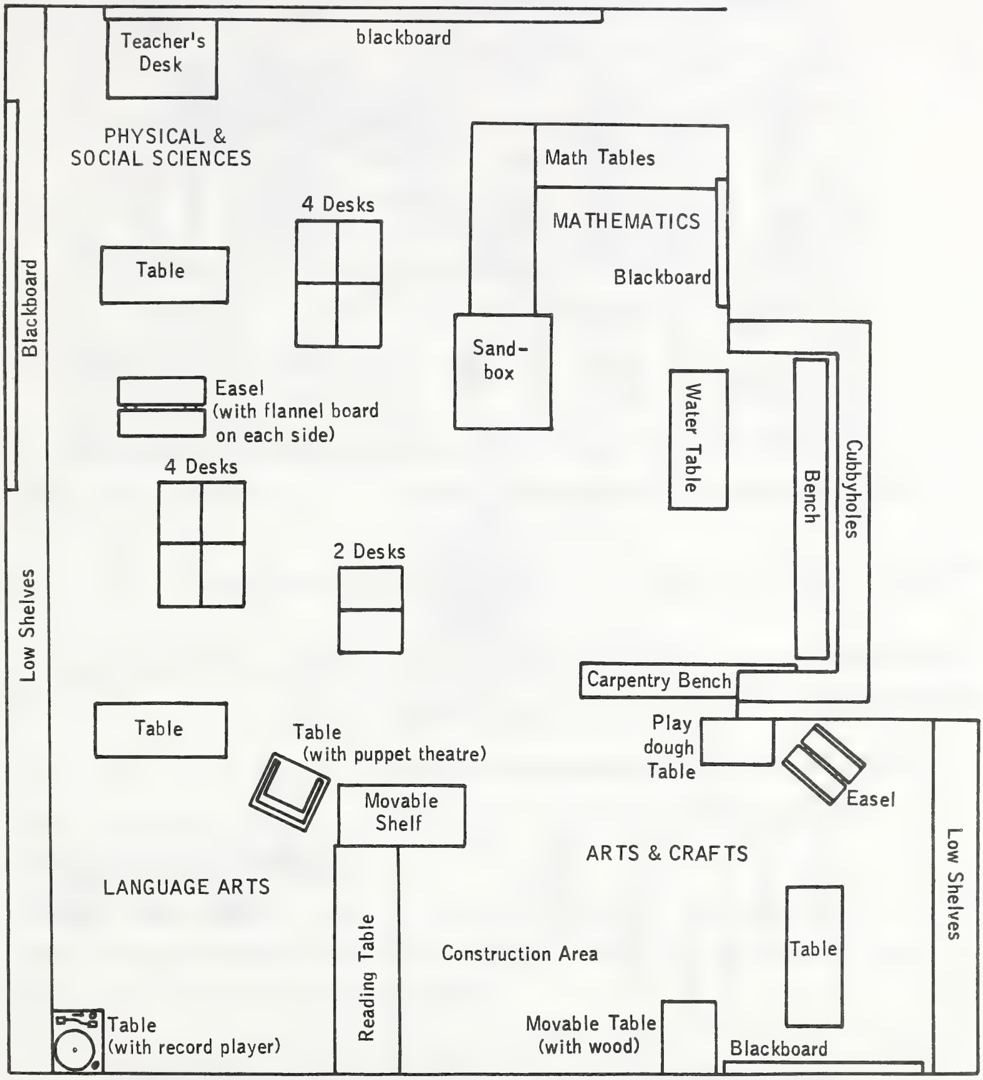
CENTRE	CODE	Number of Children
Language	A,B,C	4
Math		4
Sand		2
Water		2
Listening		3
Dramatic		4
Library		3
Carpentry		2
Blocks		5
Writing		2
Science		2
Art		5
Puppets		3
Music	♫♪ ♪ ♪	2
Manipulative		5
Total number of spaces available		48


(NOISY)
Cupboards
Puppets
Large Platform
-blocks
-carpentry
Playhouse
(creative
drama)
Cupboards
Science
Piano
Musical Instruments
Water
Sand
(WET)
(DRY)
Library
Sink
Books
Language
&
Listening
Math
Easels
Art
Manipulative
Writing
Writing
Cupboards
Cupboards
Clay
Table
Storage
Paper Storage
(QUIET)

SAMPLE FLOOR PLAN



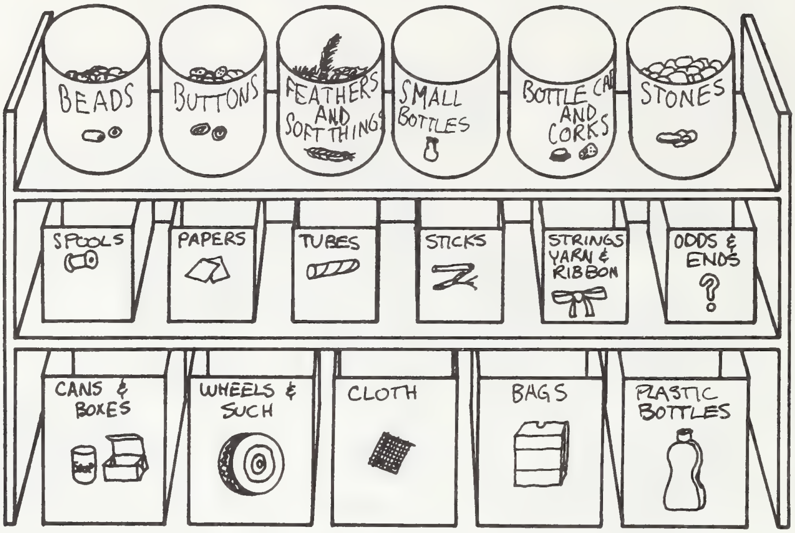
SAMPLE FLOOR PLAN



ORGANIZATION OF SPACE (STORAGE)

APPENDIX E

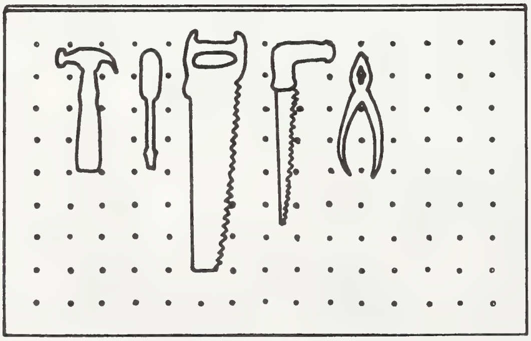
(1) Sample Storage of Craft Materials:



(2) Sample Storage of Woodworking Tools:

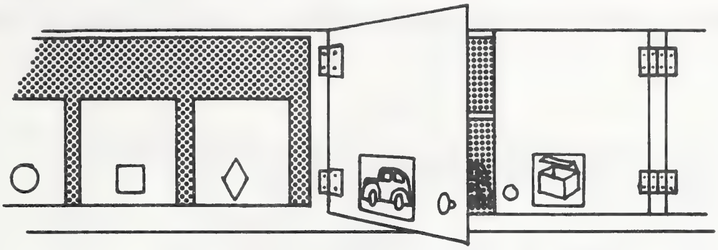
Baby food jars are nailed to shelf for nails and screws

(Peg board: draw outline of tools on board. Children hang tools in appropriate places.)



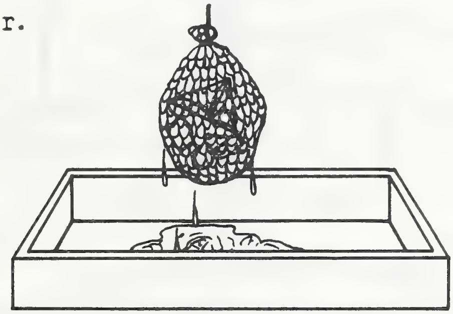
(3) Sample Block Storage:

Draw symbols on cupboard or boxes to indicate which shapes are stored in which spaces.



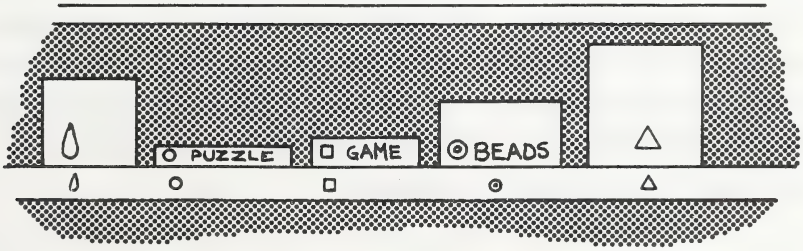
(4) Sample Water Table Toys:

Plastic net bag which hangs over water table or sink will allow water to drip into container.



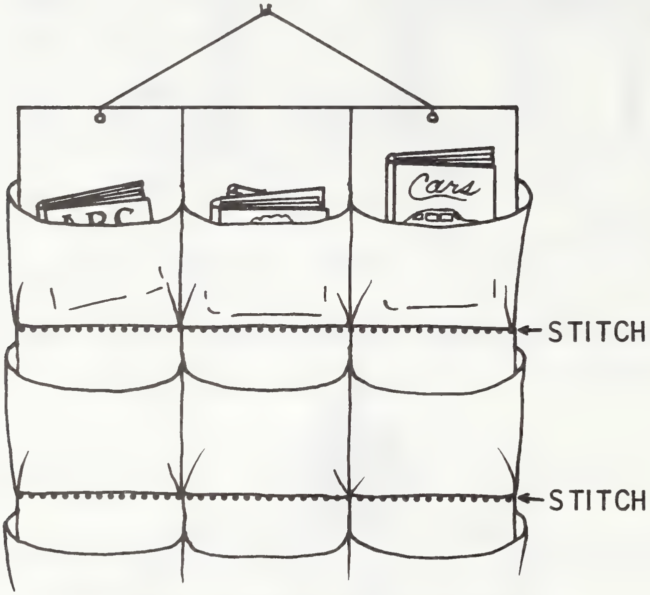
(5) Sample Manipulative Materials:

Place matching color dots or shapes on puzzles, beads, boxes, crayons etc. Place stickers on shelves so that children can easily identify where each piece of equipment went.



(6) Sample Book Storage:

Make a book-bag, similar to a shoe bag, with pockets large enough to hold books. Hang the book bag on wall or back of piano, which is "dead space" area.



(7) Sample "Found" Storage Materials:

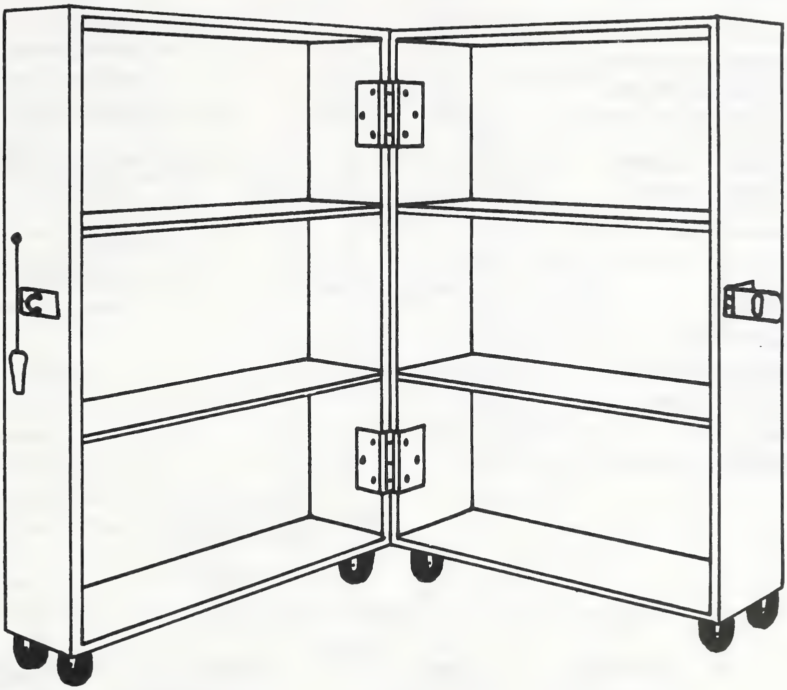
a) Large cardboard boxes with lids are found in many offices where xerox paper is used. Decorate with Latex Paint or wallpaper. They stack very well.

b) Cylinders, such as those used for mailing calendars and from paper towels can be glued together and are ideal for storing children's art work, small papers etc.

c) Make cardboard furniture from produce boxes, cardboard thrown out by appliance shops, and furniture shops. The cardboard is three-ply and is slotted to provide durability. For design ideas, write to Education Development Centre, 55 Chapel Street, Newton, Massachusetts, 02160 and ask for the publication entitled "Building With Cardboard".

(8) Folding Cupboards:

(Casters on cupboards allow more flexibility of storage and useable space).



APPENDIX F

Sand Table: (sand, balance scales, measuring containers, pie pans, jelly moulds, trucks, bulldozer, magnifying lens, rocks, scoops, shovels)

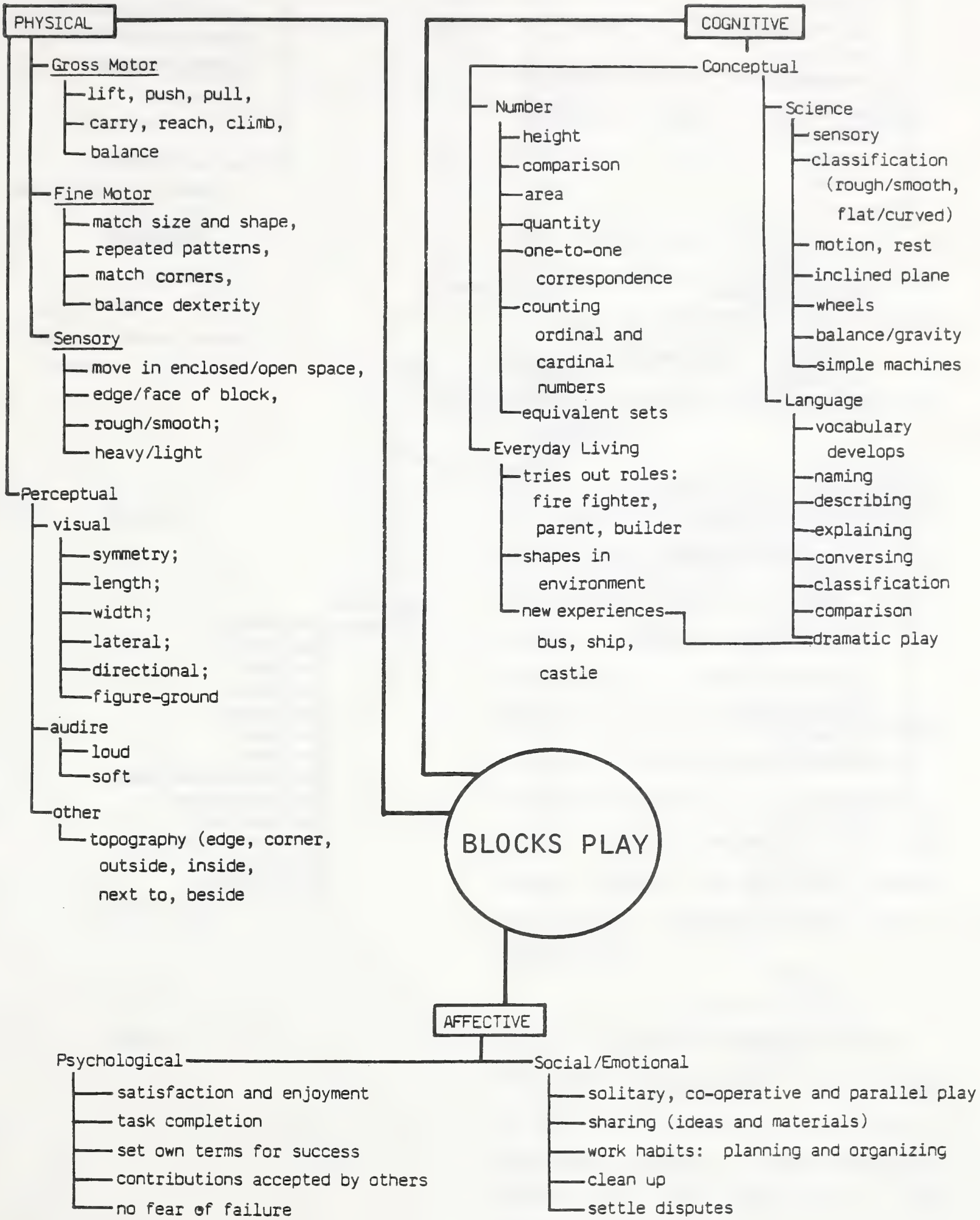
SAND PLAY

- PHYSICAL
  - Gross:
    - lifting, grading, filling, emptying, pouring
  - Fine:
    - eye-hand co-ordination (pouring from one container to another)
    - picking up objects (sieve, grader)
    - eye-hand tracking (car on road, dam)
  - Perception:
    - directional
    - texture (wet/dry)
    - visual - higher, longer, wider
    - near - far
    - lateral (right/left)
- AFFECTIVE
  - Psychological:
    - relaxing material, non-restricting
    - guaranteed success
    - self-disciplined
    - positive reinforcement
  - Social/Emotional:
    - working in co-operation in group
    - laughing
    - sharing
    - discovery which leads to mastery competence
- COGNITIVE
  - Conceptual
    - Language
      - writing about sand experiences
      - vocabulary
      - oral expression with peers/ teacher
      - imaginary play
    - Number
      - quantity more/less equivalent
      - weight (comparison)
      - volume (units of capacity)
      - full/empty
      - planes/levels
      - surface areas (positional relationships)
    - Science
      - observing
      - generalizing
      - comparing
      - classification
      - measuring
      - explaining
      - temperature (cold, wet sand, dry sand)
      - absorption (water in sand)
    - Everyday Living
      - sculpture
      - painting/ drawing
      - shape/form
      - color
      - role-playing

LEARNING FROM PLAY WITH BLOCKS

APPENDIX G

- variety of sizes and shapes of blocks

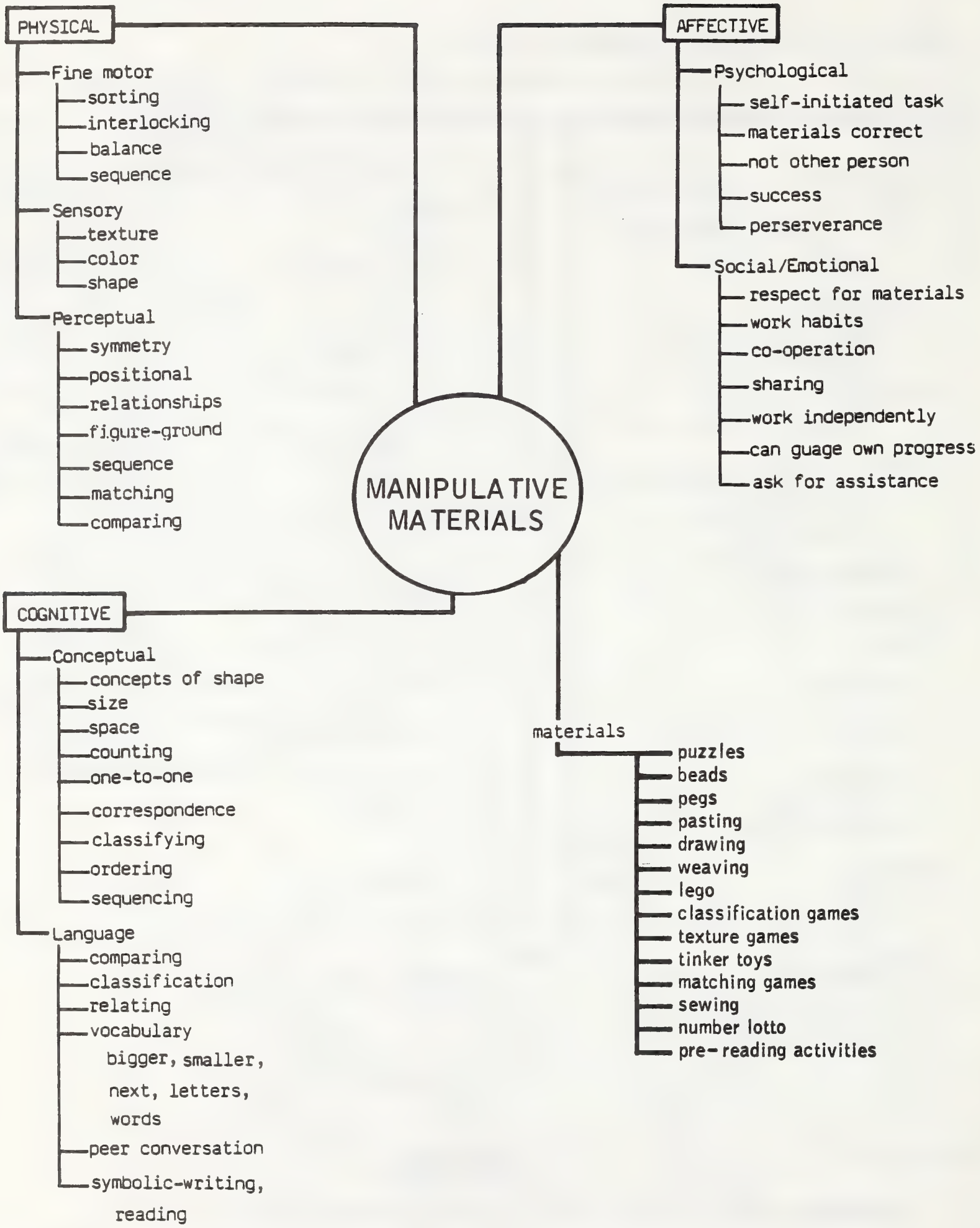


BLOCKS PLAY

- PHYSICAL
  - Gross Motor
    - lift, push, pull,
    - carry, reach, climb,
    - balance
  - Fine Motor
    - match size and shape,
    - repeated patterns,
    - match corners,
    - balance dexterity
  - Sensory
    - move in enclosed/open space,
    - edge/face of block,
    - rough/smooth;
    - heavy/light
  - Perceptual
    - visual
      - symmetry;
      - length;
      - width;
      - lateral;
      - directional;
      - figure-ground
    - audire
      - loud
      - soft
    - other
      - topography (edge, corner, outside, inside, next to, beside
- COGNITIVE
  - Conceptual
    - Number
      - height
      - comparison
      - area
      - quantity
      - one-to-one correspondence
      - counting ordinal and cardinal numbers
      - equivalent sets
    - Everyday Living
      - tries out roles: fire fighter, parent, builder
      - shapes in environment
      - new experiences bus, ship, castle
    - Science
      - sensory
      - classification (rough/smooth, flat/curved)
      - motion, rest
      - inclined plane
      - wheels
      - balance/gravity
      - simple machines
    - Language
      - vocabulary develops
      - naming
      - describing
      - explaining
      - conversing
      - classification
      - comparison
      - dramatic play
- AFFECTIVE
  - Psychological
    - satisfaction and enjoyment
    - task completion
    - set own terms for success
    - contributions accepted by others
    - no fear of failure
  - Social/Emotional
    - solitary, co-operative and parallel play
    - sharing (ideas and materials)
    - work habits: planning and organizing
    - clean up
    - settle disputes

MANIPULATIVE MATERIALS

APPENDIX H



MANIPULATIVE MATERIALS

- PHYSICAL
  - Fine motor
    - sorting
    - interlocking
    - balance
    - sequence
  - Sensory
    - texture
    - color
    - shape
  - Perceptual
    - symmetry
    - positional
    - relationships
    - figure-ground
    - sequence
    - matching
    - comparing
- AFFECTIVE
  - Psychological
    - self-initiated task
    - materials correct
    - not other person
    - success
    - perserverance
  - Social/Emotional
    - respect for materials
    - work habits
    - co-operation
    - sharing
    - work independently
    - can guage own progress
    - ask for assistance
- COGNITIVE
  - Conceptual
    - concepts of shape
    - size
    - space
    - counting
    - one-to-one
    - correspondence
    - classifying
    - ordering
    - sequencing
  - Language
    - comparing
    - classification
    - relating
    - vocabulary bigger, smaller, next, letters, words
    - peer conversation
    - symbolic-writing, reading
- materials
  - puzzles
  - beads
  - pegs
  - pasting
  - drawing
  - weaving
  - lego
  - classification games
  - texture games
  - tinker toys
  - matching games
  - sewing
  - number lotto
  - pre-reading activities

SAMPLE ANECDOTAL RECORD

APPENDIX I

NAME: Gregory Fisher

DATE:		
9/21	Math centre	- Grouped objects into sets, can recognize a set of four without counting.
9/22	Science	- Very interested in fossils. Brought a book on dinosaurs from home to be read to class. (Has been to Drumheller so, has previous experience with concept "fossils.")
9/30	Blocks	- Was leader in construction of Castle Greyskull. Named rooms in castle and functions with details. Wanted labels on structure. - Used vertical blocks to represent figures. Has a lot of previous info about topic - has figures at home. Good cooperation with John, Dean, Nicole, and Carlene. Needs to listen to others' ideas more carefully.
10/3	Reading	- Very involved in reading books. Has read Mr. Bounce. Uses context clues but does not know initial consonent blends. Fluent reader. Needs to be encouraged to try more writing activities.

SAMPLE CHECK LIST

APPENDIX J

		1. Susan	2. Robert	3. Sylvia
SCIENCE	Gravity (things fall)	D	I	M
	Magnetic	D	M	M
	Simple Machines	I	M	M
	Summarize	D	I	Gd.
	Interpretation	D	I	I
	Compares	I	I	I
	Observes	I	I	I
	One - to - one correspondence	I	M	M
NUMBER	Classifying	I	I	I
	Group Objects into Equivalent Sets	I	I	I
	Recog. Number symbols to ten	D	N	I
	Cardinal Numbers counts	1.5	I	1.2 M
	Ordinal Number 1st - 3rd	D	I	M
	Quantity (more/less)(many/few)	I	M	M

Number Concepts Science Concepts
(Sept, Oct, Nov.)

CODE: N - needs improvement
I - improving
M - mastered
D - too difficult now

NOTES—

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